

ISD News and Views

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Commentary

End User Computing has offered to provide additional "how-to" articles for the end user which will augment the already valuable TECHTALK column. The actual format has not yet been decided but the column will contain tips/hints on Windows, Lotus, WordPerfect, and others.

Modem Hang-Ups?

A recent problem has been brought to the attention of ISD that may be causing some users trouble. The situation arises when individuals use their digital telephones with the data interface to transfer files from remote dial-up data bases. They can dial okay, connect okay, interface with the service bureau data base okay, but run into problems when they try to receive a file transfer. They either hang or receive garbage.

The problem appears to be in the local modem pool. The options are being changed by users with special needs and not reset at hang-up. The fix for this is to issue an AT&F (Fetch Factory Configuration) command to the modem just prior to sending the ATDTphonenumber.

So far this has worked in all instances where we have experienced the above mentioned symptoms. If you have any questions please call Darvin Barnes at 444-2569.

Microcomputer

DOS Disk Compaction Utilities

ISD has completed an evaluation of the two leading market disk compaction utilities, Stacker R2 from Stac Electronics, and SuperStor V2 from ADDSTOR, INC.

The main benefit of these products is the ability to double (or more!) the disk capacity of your system without having to add additional hardware. This is accomplished by sophisticated software that examines the data to be written to disk for repeating patterns, and then assigning a unique code (consisting of significantly fewer bytes) to those patterns, substituting the unique codes for the patterns and allowing DOS to write the data in this new format.

PLEASE RETURN

Both products require special software drivers to be added to the **config.sys**, as well as a complex installation process that should not be attempted without careful forethought (especially for MS-Windows users!). However, for situations where disk space is at a premium, and the user is prepared to address the technical challenge of installation, the benefits of disk compaction can be well worth the effort. Laptops and portables with small capacity hard disks are good candidates for disk compaction.

There is still one major player waiting to play their card in this area, Microsoft. Rumors persist that the pending release of MS-DOS 6.0 will include disk compaction built into the operating system.

Recommendation:

ISD feels that unless disk capacity is at a crisis point, it is in the state's best interest to wait and see what the release of MS-DOS 6.0 will offer. However if waiting is not an option, then ISD recommends Stacker from Stac Electronics.

Stacker's installation procedure proved to be easier than SuperStor's, especially for MS-Windows users. Stacker also provided the ability to synchronize changes made to the duplicate **config.sys** and **autoexec.bat** files that are maintained in the compressed and uncompressed disks (this may not make sense now, but trust us, its important!). Last, Stac Electronics telephone support was more responsive than AD-DSTOR's.

ISD does not intend to provide support for Stacker, or a purchasing vehicle. Instead, ISD felt it was important to share our experience with you for the purpose of assisting in your decision process. If there are any further questions, feel free to contact Terry Kramer at 444-2556 or Randy Holm at 444-2824.

Changing The Appearance of WINDOWS 3.1

You can control the appearance of Windows 3.1 on your screen in a number of ways. Windows 3.1 makes some changes easy to accomplish through the use of the CONTROL PANEL and DESKTOP program groups. However, there are several changes you can make to the appearance of Windows 3.1 that must be done

manually. For instance, the titles that appear under icons default to a small non-emphasized font. You can change Windows 3.1 so that icon titles appear larger and darker, making them easier to read. Complete the following instructions exactly and in order to try out a different look for your icon titles.

1. Make a copy of your WIN.INI file, naming it WININI.OLD or something similar.
2. Start File Manager
3. Locate "SYSEDIT.EXE", (probably in your main Windows directory), and double-click on SYSEDIT.EXE to execute it. SYSEDIT will bring up individual edit windows for 4 files - SYSTEM.INI, WIN.INI, CONFIG.SYS, and AUTOEXEC.BAT.
4. Click on the WIN.INI window. This will bring the WIN.INI file to the forefront where you can edit it.
5. Scroll through the WIN.INI file until you locate the section that starts with [DESKTOP].
6. Add the following lines to the [DESKTOP] section (or edit them if they already exist in the desktop section):

IconTitleStyle=1
IconTitleFontName=Times New Roman
IconTitleSize=10
IconVerticalSpacing=60
IconSpacing=90
7. Click on File/Save to save the new version of WIN.INI
8. Click on FILE/EXIT to exit SYSEDIT.
9. Exit Windows 3.1 normally.
10. Restart Windows 3.1 and notice the different look of your icon titles.

*** Note that you can try other values for IconTitleSize - the larger the number the larger the size of the characters. You can also choose fonts other than Times New Roman for IconTitleFontName. The available fonts can be found in the [FONTS] section of your WIN.INI file. IconTitleStyle determines whether the font is displayed in BOLD or not - 0=not bold, 1=BOLD. IconVerticalSpacing increases the vertical spacing between icons - the larger the number, the more vertical spacing. IconSpacing

controls the horizontal spacing between icons.

If you have any questions about or problems with Windows, please contact Denny Knapp (2072) in End User Computing.

New Pricing For PC SAS

A new pricing structure is being implemented to allow PC SAS users greater flexibility and wider choices in the SAS components they use. The old pricing structure was a one-time fee of \$500 for Base SAS, SAS/ASSIST, SAS/STAT and SAS/GRAPH. The new pricing will be a one-time fee of \$200 for Base SAS with SAS/ASSIST and \$100 for each additional component. As before, yearly maintenance charges will be covered by ISD.

The additional SAS components available are:

SAS/AF	application development facilities
SAS/ETS	business planning, forecasting and decision support
SAS/FSP	customized data entry, retrieval and letter writing
SAS/GRAPH	high-resolution graphics
SAS/IML	matrix programming
SAS/OR	operations research and project management
SAS/QC	quality management
SAS/STAT	full-function statistical analysis

ISD will provide full support for Base SAS, with limited support for the additional components. ISD will not have staff expertise on many of the additional components, but does have telephone support from SAS for problem resolution. Training is provided by ISD for Base SAS but not for additional components. Training could possibly be arranged for additional components if demand warrants it.

There is no plan to add any additional components to mainframe SAS at this time. It will continue to be just the Base, ETS, FSP, STAT, and CONNECT (micro-to-host link) components.

If you have questions about SAS, please call Jane Black Eagle in End User Computing at 444-2742.

Failsafe 123 Save

Have you ever lost a Lotus file during a save operation? In the event of a power loss or fluctuation, the potential exists for Lotus 1-2-3 to erase your file during the save process. When you enter (/fsr) file - save - replace, Lotus will reset the files directory information prior to completing the save operation. Therefore, if something happens, the file information will be lost. To avoid this possible scenario, you should use the (/fsb) file - save - backup, instead. By using this method, Lotus will first copy the original, residing on disk, to a new file with a BAK extension, and then replaces the original with what is currently residing in memory.

TECHTALK

When you print a range that's too long to fit on a single page, Lotus 1-2-3 automatically splits the text between pages until it has printed the entire range. The number of rows that fit on a page is determined by the Pg-Length command in the Print Printer Options submenu.

1-2-3's default page length is 66 lines. This does not mean that 66 worksheet rows will print on each page. 1-2-3 uses two blank lines to create white space at both the top and bottom of each page and reserves one line for both the header and footer. Therefore, only 60 lines are available on a standard 8.5 x 11 inch page. (If you change your setup string to print other than six lines per page, you will be able to print more/less lines per page depending on which setup string you choose.)

For most dot-matrix printers, a page length of 66 works fine. However, laser printers generally require a page length of 60. If you don't set the page length to 60, you may find that the page breaks on your multipage printout fall in the middle of the page, instead of at the bottom of the page. The first page of your spreadsheet prints properly but subsequent pages have larger and larger top margins (i.e., creep down). This occurs because the number of lines of text—including the top margin, bottom margin, and page length—is exceeding the printer's text length.

For a solution: set your page length according to your setup string. Press /Print Printer Options Pg-Length and enter the correct page length for your printer and setup string. If your spreadsheet doesn't have headers, footers, or borders (or you don't want them to print) you may also select /Print Printer Options Other Unformatted. This will eliminate the extra lines 1-2-3 reserves for headers and footers so you will be able to print more per page and have less white space at the top and bottom of each page. Keep in mind that while this option is set to unformatted, no headers, footers, or borders will appear when the spreadsheet is printed. If you decide later to print headers, footers, or borders you will need to select /Print Printer Options Other Formatted.

You can override 1-2-3's automatic page breaks with the Worksheet Page command. To insert a page break, place the cell pointer in the left-most cell of the print range where you want a page break to occur and select /Worksheet Page. 1-2-3 inserts a row in the worksheet and places a split vertical bar and two colons in the cell. When 1-2-3 encounters this symbol in a Print range, the next worksheet row will appear on a new page of the printout.

If you have any questions about printing using Lotus 1-2-3, please call Irv Vavruska at 444-2858, or Jerry Kozak at 444-2907, both from End User Computing.

METNET VIDEO NETWORK "OPEN HOUSE" TO BE HELD IN OCTOBER

The Montana Educational Telecommunications Network (METNET) would like to invite State Agencies to attend a two-way video "Open House" tentatively scheduled for October 14 (from 3:00 PM to 5:00 PM) and October 15 (from 1:00 PM to 3:00 PM). The "Open House" will include presentations on the use of the two-way video equipment. The Department of Administration will provide personnel at each site (listed below) to answer questions, and will

credit each agency that attends the "Open House" with **FREE** two-way video network usage. Agencies may contact Rick Wine at 444-3517 for further information on the "Open House."

The four sites scheduled for the "Open House" are:

State Capitol, Helena..... Room 410
Mt State University, Bozeman..... McCall Hall, TV Studio
Eastern Mt College, Billings..... Cisel Hall, Rm. 002
University of Mt, Missoula..... McGill Hall, Rm. 215

End Notes

Submit Articles

If you wish to submit an article to *News and Views* for publication, the following schedule provides dates that articles must be received by in order to be included in the issues listed below:

December Issue 10/22/92
January Issue 11/18/92
February Issue 12/23/92
March Issue 01/22/93

ISD HELP DESK 444-2973

Have a problem? Need ISD assistance or support for any of your information processing needs--either voice or data? The central contact point is the ISD Help Desk.

880 copies of this public document were printed at a cost of \$264.
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Editor: **Curt Secker**

Training Information

All classes will be held in the Training Room in the basement of the Teachers Retirement Building at 1500 6th Ave. unless another location is specified. There is a limit of 12 participants per paid class and 20 participants per demonstration (free) class, unless otherwise announced. The cost of classes is shown below. Please note that these costs are subject to change each July 1.

To enroll in a class, send an enrollment application to the Department of Administration, ISD Help Desk, Mitchell Building, Helena, MT 59620. If you have questions about enrollment, telephone the Help Desk, 444-2973. *Once you enroll in a class, by mail or telephone, the full fee will be charged UNLESS you cancel at least three business days before the first day of class.*

The classes available and their costs are as follows:

Class Name	Cost	Length in Days
Introduction to TSO/SPF	\$ 80.00	1
Introduction to JCL (Job Control Language)	320.00	4
*Introduction to CICS Programming	**	5
*Introduction to IDMS Database Programming	**	5
*IDMS ADS/Online	**	5
Introduction to CULPRIT	240.00	3
*Subscribing in CULPRIT	FREE	¼
*CULPRIT Programming for IDMS	160.00	2
*Using COMPAREX	40.00	½
Introduction to SAS: Module 1	20.00	¼
Module 2	20.00	¼
Module 3	200.00	2½
*Novell Network Administration	160.00	2
*Novell NetWare System Manager	**	3
*Novell NetWare Advanced System Manager	**	3
Novell Netware Service & Support	**	5
*PC Memory Management Options and Considerations	FREE	¼
*Windows Purchase, Installation and Use Considerations	FREE	¼
*Windows for the Technical Support Team	**	2
Beginning Microcomputer Skills	80.00	1
Fundamentals of DOS	80.00	1
*Intermediate DOS	80.00	1
*Introduction to Novell Networks	40.00	½
*Introduction to Windows	80.00	1
Introduction to WordPerfect (5.0 or 5.1)	120.00	1½
*Advanced Features of WordPerfect 5.0	120.00	1½
WordPerfect (5.0 or 5.1) Complex Document Functions	40.00	½
More WordPerfect (5.0 or 5.1) Complex Document Functions	40.00	½
*WordPerfect 5.1 Tables	40.00	½
WordPerfect 5.1 Columns and Math Functions	40.00	½
*WordPerfect 5.1 Graphics	80.00	1
WordPerfect Merge and Sort Functions	40.00	½
WordPerfect 5.1 Macros	80.00	1
*WordPerfect 5.1 Tips and Tricks	FREE	¼
*Conversion from WordPerfect 5.0 to 5.1	FREE	¼

Spreadsheet Design and Documentation	80.00	1
*Conversion from Lotus 1-2-3 Rel. 2.2 to Rel. 3.1	FREE	¼
Introduction to Lotus 1-2-3, (Release 2.3 or 3.1)	160.00	2
*Intermediate Lotus 1-2-3, (Release 2.3 or 3.1)	80.00	1
Lotus 1-2-3 WYSIWYG Features (Release 2.3 or 3.1)	40.00	½
Lotus 1-2-3 Graphics (Release 2.3 or 3.1)	40.00	½
Lotus 1-2-3, Release 3.1, 3-Dimensional Spreadsheets	40.00	½
Lotus 1-2-3 Printing (Release 2.3 or 3.1)	40.00	½
Freelance	80.00	1
*Lotus 1-2-3 Macros (Release 2.2, 2.3, or 3.1)	160.00	2
*Introduction to Lotus 1-2-3 Database Features	160.00	2
*Introduction to PFS:Professional File, Ver. 2.0	80.00	1
*Micro Database Concepts and Design	80.00	1
*Introduction to R:Base, Release 3.1	200.00	2½
Advanced R:Base Release 3.1	160.00	2
*R:Base Query and Reports (Rel. 3.1)	80.00	1
R:Base Views (Rel. 3.1)	FREE	¼
*Intermediate R:Base (Rel. 3.1)	160.00	2
*Introduction to dBASE III+	280.00	3½
*State Telephone Training	FREE	¼

* This class is not scheduled during the time covered in this issue.

Training Calendar

Data Network/Mainframe Classes

October 19	Introduction to TSO/SPF
October 20-23	Introduction to JCL
November 18-20	Introduction to Culprit
Nov. 30 - Dec. 4	Novell Netware Service & Support
December 14-16	Introduction to SAS

Microcomputer Classes

November 2	Beginning Microcomputer Skills
November 23	Fundamentals of DOS

Word Processing Classes

Oct 5, Oct 6 a.m.	Introduction to WordPerfect (5.0 or 5.1)
October 7 a.m.	WordPerfect 5.1 Columns and Math Functions
October 8 a.m.	WordPerfect Merge and Sort Functions
October 27	WordPerfect 5.1 Macros
October 28 a.m.	WordPerfect Complex Document Functions
October 29 a.m.	More WordPerfect Complex Document Functions
Nov. 9, Nov. 10 a.m.	Introduction to WordPerfect (5.0 or 5.1)
Dec. 3 a.m.	WordPerfect Complex Document Functions
Dec. 3 p.m.	More WordPerfect Complex Document Functions
Dec. 9, Dec. 10 a.m.	Introduction to WordPerfect (5.0 or 5.1)

Spreadsheet Classes

October 1 a.m.	Lotus 1-2-3 Graphics (Release 2.3 or 3.1)
October 1 p.m.	Lotus 1-2-3 Printing (Release 2.3 or 3.1)
October 13	Spreadsheet Design and Documentation
Oct 14 & 15	Introduction to Lotus 1-2-3 (Release 2.3 or 3.1)
November 12 a.m.	Lotus 1-2-3 WYSIWIG Features (Release 2.3 or 3.1)
November 12 p.m.	Lotus 1-2-3 Release 3.1 3-Dimensional Spreadsheets
November 16 & 17	Introduction to Lotus 1-2-3 (Release 2.3 or 3.1)
December 1 & 2	Introduction to Lotus 1-2-3 (Release 2.3 or 3.1)
December 8	Freelance

Database Classes

November 5 & 6	Advanced R:Base, Release 3.1
December 7	R:Base Views, Release 3.1

Communication Classes

Data Network/Mainframe Classes

INTRODUCTION TO TSO/SPF: presented by Jane Black Eagle and Denny Knapp of the Application Services Bureau

DATE: October 19, 1992
TIME: 8:30 a.m. to 4:30 p.m.
PREREQUISITE: 3270nd (Interactive Class on Terminal Operation)
LOCATION: Basement of the Teachers Retirement Bldg. at 1500 6th Ave.

"Introduction to TSO/SPF" is a hands-on workshop about using computer terminals (or PC terminal emulators) and the SPF editor. SPF is an easy-to-learn, menu-driven system used to enter data and programs into the State's mainframe computer. Entering data, changing data and submitting programs (jobs) for execution are covered in detail. Also covered are SPF's utility functions and the tracking of job output.

This course is essential for state government personnel using terminals or PC's linked to the State's central computer. It is a prerequisite for many other ISD classes.

INTRODUCTION TO JCL (JOB CONTROL LANGUAGE): presented by Jane Black Eagle and Denny Knapp of the Application Services Bureau

DATE: October 20, 21, 22, 23, 1992
TIME: 8:30 a.m. to 4:30 p.m. each day
PREREQUISITE: Introduction to TSO/SPF
LOCATION: Basement of the Teachers Retirement Bldg. at 1500 6th Ave.

This course is designed for programmers, I/O controllers, operations technicians or users of report-writing software who submit jobs on the State's mainframe system.

The course will cover:

- Syntax and coding of IBM Job Control Language (JCL)
- MVS operating system
- Handling datasets and device assignments
- Some of the IBM utilities
- Troubleshooting and interpreting system messages
- Hands-on experience writing and executing JCL

INTRODUCTION TO CULPRIT: presented by Jane Black Eagle of the Application Services Bureau.

DATE: November 18 through 20, 1992

TIME: 8:30 a.m. to 4:30 p.m.

PREREQUISITE: Introduction to TSO/SPF and JCL required and programming experience helpful

LOCATION: Basement of the Teachers Retirement Bldg. at 1500 6th Ave.

This 3-day class is directed toward end users and programmers. It will cover the basic functions of the CULPRIT report writer and the basic aspects of generating reports from standard files. It will not treat more advanced topics such as database access or match files. Topics covered will include:

- Generating a basic report from standard files
- Enhancing and formatting the report
- Generating multiple reports
- Sequencing report output
- Selective processing
- Understanding programming logic
- Performing arithmetic operations
- Directing processing flow
- Generating total lines
- Generating subtotals and sort levels
- Printing selected output lines

INTRODUCTION TO SAS: presented by Randy Holm and Jane Black Eagle of the Application Services Bureau

This course has been designed in a modular fashion to accommodate both mainframe and PC SAS users. New mainframe SAS users will want to take modules 1 and 3. Module 2 is designed for the PC "Introduction to SAS" course.

DATE & TIME:	Dec 14, 8:30 am to 10:30 am	Module 1, Running Mainframe SAS (JCL, Display Manager, etc.)
	Dec 14, 10:45 am to noon	Module 2, Running PC SAS
	Dec 14, 1:00 am to pm 4:30 pm	Module 3, Introduction to SAS for
	Dec 15, 8:30 am to 4:30 pm	mainframe and PC users
	Dec 16, 8:30 am to 4:30 pm	

PREREQUISITES: Basic Terminal Skills, TSO logon ID, TSO library.

LOCATION: Basement of the Teachers Retirement Bldg. at 1500 6th Ave.

SAS (Statistical Analysis System) is a very powerful, general purpose data manipulation tool; its function includes, but is not limited to, statistical analysis. It can be used to capture, edit, and report on a variety of data. Statistical procedures and reports can be specified to summarize the data and print the resulting information.

This course is intended to teach both the basic uses of SAS as a general data management tool and its use in preparing data for statistical analysis. Students will develop databases and program a variety of SAS features, including basic statistical procedures. The class does not attempt to teach statistics and prior knowledge of statistics is not necessary.

Microcomputer Classes

BEGINNING MICROCOMPUTER SKILLS: presented by the staff of The Computer School

DATES: November 2, 1992

TIME: 8:30 a.m. to 4:30 p.m.

PREREQUISITE: None

LOCATION: Basement of the Teachers Retirement Bldg. at 1500 6th Ave.

This course will give participants brief hands-on experience with microcomputers. The following topics will be covered:

- The Machine
- The Operating System
- Word Processing
- Spreadsheets and Graphics
- File Management
- Communications

Most class time will be spent using microcomputers and software. This course helps develop a positive attitude toward using microcomputers and teaches their basic functions. This class--or its equivalent--is a prerequisite for our other microcomputer courses.

FUNDAMENTALS OF DOS: presented by the staff of The Computer School

DATE: November 23, 1992

TIME: 8:30 a.m. to 4:30 p.m.

PREREQUISITE: Beginning Microcomputer Skills

LOCATION: Basement of the Teachers Retirement Bldg. at 1500 6th Ave.

"Fundamentals of DOS" is intended for microcomputer users who need to know more about controlling the microcomputer through its operating system. Programming experience is NOT required. Topics to be covered include:

- What is DOS? Why is it necessary to know about it?
- DOS names for peripherals
- File naming
- Set-up files such as CONFIG.SYS
- Internal DOS commands - DIR, ERASE, RENAME, TYPE, COPY and their variations
- External commands - FORMAT, SYS, DISKCOPY, CHKDSK, MODE
- Interpreting batch files
- Backup procedures

Word Processing Classes

INTRODUCTION TO WORDPERFECT: presented by the staff of The Computer School

DATE: October 5 and 6, 1992
November 9 and 10, 1992
December 9 and 10, 1992
TIME: 8:30 a.m. to 3:30 p.m. on first day
8:30 a.m. to noon on second day
PREREQUISITE: Beginning Microcomputer Skills or equivalent
LOCATION: Basement of the Teachers Retirement Bldg. at 1500 6th Ave.

This class is a generic introduction to WordPerfect for new users of release 5.0 or 5.1. Experience with WordPerfect is not necessary. Participants will go through the fundamentals of creating, formatting, editing and printing documents. Some advanced features will also be covered, including checking spelling, finding a word or phrase, marking blocks of text, moving text and listing/retrieving document files.

WORDPERFECT 5.1 COLUMNS AND MATH FUNCTIONS: presented by staff of the Computer School

DATE: October 7, 1992
TIME: 8:30 a.m. to noon
PREREQUISITE: Introduction to WordPerfect 5.0 or 5.1
LOCATION: Basement of the Teachers Retirement Bldg. at 1500 6th Ave.

This class will cover the column and math features in WordPerfect 5.1. Students will learn to set up and edit newspaper and parallel columns of various widths and lengths. They will practice editing text or figures in columns without losing the desired layout or visual effect. For column entries requiring calculation, subtotals and totals, students will learn to create and use column definitions, math functions, and formulas.

WORDPERFECT MERGE AND SORT FUNCTIONS: presented by staff of the Computer School

DATE: October 8, 1992
TIME: 8:30 a.m. to noon
PREREQUISITE: Introduction to WordPerfect 5.0 or 5.1
LOCATION: Basement of the Teachers Retirement Bldg. at 1500 6th Ave.

This class will cover the file merge and sort features of WordPerfect. Students currently using WordPerfect 5.0 or 5.1 will have hands-on practice with the steps needed to generate files sorted in a variety of ways. They will also learn to merge primary and secondary files for mass mailings, for example, and to set up files for keyboard merges.

WORDPERFECT COMPLEX DOCUMENT FUNCTIONS: presented by staff of the Computer School

DATE: October 28 a.m.
December 3 a.m.
TIME: 8:30 a.m. to noon
PREREQUISITE: Introduction to WordPerfect 5.0 or 5.1
LOCATION: Basement of the Teachers Retirement Bldg. at 1500 6th Ave.

This class will cover Master and Subdocument design as well as creation of tables of contents. Using WordPerfect's Master Document feature allows creation of larger or more complex documents while providing more manageable and editable documents. Examples are reports containing multiple chapters or requiring tables of contents, lists of figures and tables, outlines, headers and/or footers. Students currently using WordPerfect 5.0 or 5.1 will learn WordPerfect features that make it easy to generate tables of contents, lists and outlines and to combine subdocuments into a complex master document. Students will learn how to build, edit and expand a master document that includes lists of the document's contents.

MORE WORDPERFECT COMPLEX DOCUMENT FUNCTIONS—FONTS, STYLES AND LISTS:
presented by staff of the Computer School

DATES & TIMES: October 29, 1992 8:30 a.m. to noon
December 3, 1992 1:00 p.m. to 4:30 p.m.
PREREQUISITE: WordPerfect (5.0 or 5.1) Complex Document Functions
LOCATION: Basement of the Teachers Retirement Bldg. at 1500 6th Ave.

This class will expand upon the concepts covered in the prerequisite class. Persons currently using WordPerfect 5.0 or 5.1 will learn WordPerfect features that they can use to create a variety of reports and other complex documents. Students will learn to incorporate lists of tables and figures, headers and footers, footnotes or endnotes, and cross-referencing into the Master and Subdocument design. The class will also cover the use of Style, Font, Text In/Out, Graphics and Compose functions for document design and layout. This class will be taught using WordPerfect 5.1, but concepts and functions covered are available in WordPerfect 5.0.

WORDPERFECT 5.1 MACROS presented by staff of the Computer School

DATE: October 27, 1992
TIME: 8:30 a.m. to 4:30 p.m.
PREREQUISITE: Introduction to WordPerfect 5.0 or 5.1
LOCATION: Basement of the Teachers Retirement Bldg. at 1500 6th Ave.

This is a seminar class that will cover the theory and construction of basic WordPerfect macros. Class will begin with simple hot key and named macros and proceed through the introductory level of the macro language. Special macros will be created such as capturing inside addresses for printing envelopes and building simple menus for lists of commonly used tasks. Students are encouraged to bring examples of tasks for instructor assisted class projects.

Spreadsheet Classes

SPREADSHEET DESIGN AND DOCUMENTATION: presented by Irvin Vavruska of the
Application Services Bureau

DATE: October 13, 1992
TIME: 8:30 a.m. to 4:30 p.m.
PREREQUISITE: Introduction to Lotus 1-2-3
LOCATION: Basement of the Teachers Retirement Bldg. at 1500 6th Ave.

This class will emphasize the importance, effectiveness and the organizational benefits of good spreadsheet design and documentation. Lotus 1-2-3 Release 2.2 will be used to demonstrate good and bad techniques. Some common methods for solving logic problems and locating design and programming mistakes will be covered.

INTRODUCTION TO LOTUS 1-2-3, RELEASE 2.3 OR 3.1: presented by the staff of The
Computer School

DATE: October 14 and 15, 1992
November 16 & 17, 1992
December 1 & 2, 1992
TIME: 8:30 a.m. to 4:30 p.m. each day
PREREQUISITE: Beginning Microcomputer Skills
LOCATION: Basement of the Teachers Retirement Bldg. at 1500 6th Ave.

This class is a generic introduction to Lotus 1-2-3 for persons with little or no Lotus experience. It will consist of instructions and hands-on practice, with lab time available for building spreadsheets of the participants' choosing.

The class will cover design, creation, printing and editing of spreadsheets. Additional topics will include selected graphic features, the use of formulae to connect spreadsheets, and the opening of multiple files at the same time. Students will learn about new WYSIWYG (What You See Is What You Get) features of Releases 2.3 and 3.1 such as enhanced printing of spreadsheets and graphs.

LOTUS 1-2-3 WYSIWYG FEATURES: presented by the staff of The Computer School

DATES: November 12, 1992
TIME: 8:30 a.m. to noon
PREREQUISITE: Introduction to Lotus 1-2-3
LOCATION: Basement of the Teachers Retirement Bldg. at 1500 6th Ave.

This course is intended for users of Release 2.3, 3.1 or 3.1+ who are already using Lotus 1-2-3 to create spreadsheets. It introduces students to the WYSIWYG (What You See Is What You Get) features of Lotus 1-2-3. The class consists of lecture and hands-on practice with the following features:

- Format--fonts, boldface, italics, underline, shadow, and outline
- Text--ranges, alignment, edit
- Screen display, zoom and customization
- Graphics within a worksheet--adding, enhancing, changing size or location
- Page layout
- Previewing and printing
- Advanced WYSIWYG features

LOTUS 1-2-3 GRAPHICS:

presented by the staff of The Computer School

DATES & TIMES: October 1, 1992 8:30 a.m. to noon**PREREQUISITE:** Introduction to Lotus 1-2-3**LOCATION:** Basement of the Teachers Retirement Bldg. at 1500 6th Ave.

This course is intended for users of Release 2.3, 3.1 or 3.1+ who are already using Lotus 1-2-3 to create spreadsheets. After a review of the basic Graph features, students will explore options such as automatic graph creation, group data ranges, graph windows, graph areas and Named versus Saved graphs. The class will then cover graphic display and print options. Students will learn to select colors, patterns, fonts and graph types and to save graphs and incorporate graphics into their spreadsheets.

LOTUS 1-2-3 PRINTING, RELEASE 2.3 OR 3.1 OR 3.1+:presented by the staff of The
Computer School**DATE:** October 1, 1992**TIME:** 1:00 p.m. to 4:30 p.m.**PREREQUISITE:** Introduction to Lotus 1-2-3**LOCATION:** Basement of the Teachers Retirement Bldg. at 1500 6th Ave.

This course is intended for users of Release 2.3, 3.1, or 3.1+ who are already using Lotus 1-2-3 to create spreadsheets and who want to have more control over printing. After a review of basic printing features, students will explore the Print Options menu, embedded printer control codes, printer setup strings, and creating .PRN files. The class will also cover using menu commands to print compressed, standard, or expanded characters; print compressed or standard pitch (line spacing); and print fonts and colors available on your printer. Other topics covered include automatic and manual page compression, print preview, and an introduction to WYSIWYG as it pertains to controlling page layout.

LOTUS 1-2-3, RELEASE 3.1, 3-DIMENSIONAL SPREADSHEETS:presented by the staff of The
Computer School**DATES & TIMES:** November 12, 1992, 1:00 p.m. to 4:30**PREREQUISITE:** Introduction to Lotus 1-2-3**LOCATION:** Basement of the Teachers Retirement Bldg. at 1500 6th Ave.

This course is intended for users of Release 3.1 who are using Lotus 1-2-3 to create spreadsheets. It covers the purposes of three dimensional spreadsheets and provides hands-on practice with multiple (3-dimensional) worksheets within a file. Features covered include:

- Multiple worksheet uses
- Inserting and deleting worksheets
- Navigation among worksheets
- Working with three-dimensional ranges
- Perspective view
- Using group mode
- Working with more than one file in memory
- Navigating among files

LOTUS FREELANCE: presented by Irvin Vavruska of the Application Services Bureau

DATE: December 8, 1992

TIME: 8:30 am to 4:00 pm

PREREQUISITE: Beginning Microcomputer Skills

LOCATION: Basement of the Teachers Retirement Bldg. at 1500 6th Ave.

This class will give participants hands-on experience using Freelance to create many types of figures, drawings and graphs. Students will learn to use Freelance's symbol library and freehand drawing capabilities and to import data from Lotus 1-2-3 spreadsheets to create a publication-quality chart or graph.

Database Classes

R:BASE VIEWS (RELEASE 3.1): presented by Jane Black Eagle of the Application Services Bureau

DATE: December 7, 1992

TIME: 1:00 to 3:00 p.m.

PREREQUISITE: Beginning Microcomputer Skills, Micro Database Concepts and Design and Fundamentals of DOS

LOCATION: Basement of the Teachers Retirement Bldg. at 1500 6th Ave.

This free demonstration class will cover the design and creation of views in R:Base and when to use them.

ADVANCED R:BASE, RELEASE 3.1: presented by Denny Knapp and Jane Black Eagle of the Application Services Bureau

DATE: November 5 and 6, 1992

TIME: 8:30 am to 4:30 pm

PREREQUISITE: Introduction to R:Base

LOCATION: Basement of the Teachers Retirement Bldg. at 1500 6th Ave.

This class will expand on topics covered in "Introduction to R:Base." Topics include sophisticated forms and reports, multi-table operations, development of systems using the "Application Express," and the development and use of customized R:Base programming.

ISD CLASS ENROLLMENT APPLICATION
COMPLETE THIS APPLICATION IN FULL AND
RETURN IT TO THE INFORMATION SERVICES "HELP DESK"
PRIOR TO THE FIRST DAY OF CLASS

COURSE DATA

Course Requested: _____

Date Offered: _____

STUDENT DATA

Name: _____

Soc. Sec. Number (for P/P/P): _____

Agency & Division: _____

Mailing Address: _____

Phone: _____

How have you met the required prerequisites for this course? Explain, giving the class(es) taken, tutorial(s) completed, and/or experience.

BILLING INFORMATION/AUTHORIZATION

ISD Billing Number (5 digits): _____

Authorized Signature: _____

FULL CLASS FEE WILL BE BILLED TO THE REGISTRANT UNLESS
CANCELLATION IS MADE THREE BUSINESS DAYS BEFORE
THE START DATE OF THE CLASS.

SEND COMPLETED FORM TO:
ISD HELP DESK, DEPARTMENT OF ADMINISTRATION

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